GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 31, 2004, 19:53:21 ; Search time 32 Seconds
(without alignments)
296.849 Million cell updates/sec

Title: US-09-589-777C-2
Perfect score: 968
Sequence: 1 HTHQDFQPVLHLVALNTPLS.....CHNSYIVLCIENSFMTSFSK 184

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	968	100.0	191	4	US-09-561-500-13	Sequence 13, Appl
2	968	100.0	191	4	US-09-561-108-13	Sequence 13, Appl
3	968	100.0	191	4	US-09-561-526-13	Sequence 13, Appl
4	968	100.0	191	4	US-09-561-499-13	Sequence 13, Appl
5	968	100.0	191	4	US-09-998-831-13	Sequence 13, Appl
6	965	99.7	195	1	US-08-159-784-2	Sequence 2, Appli
7	916	94.6	185	3	US-08-985-526-36	Sequence 36, Appl
8	840	86.8	182	4	US-09-561-500-14	Sequence 14, Appl
9	840	86.8	182	4	US-09-561-108-14	Sequence 14, Appl
10	840	86.8	182	4	US-09-315-689-3	Sequence 3, Appli
11	840	86.8	182	4	US-09-561-526-14	Sequence 14, Appl
12	840	86.8	182	4	US-09-561-499-14	Sequence 14, Appl
13	840	86.8	182	4	US-09-998-831-14	Sequence 14, Appl
14	840	86.8	183	3	US-09-206-059-2	Sequence 2, Appli
15	822	84.9	178	4	US-09-315-689-5	Sequence 5, Appli
16	550	56.8	191	1	US-08-159-784-3	Sequence 3, Appli
17	273.5	28.3	124	4	US-09-231-077D-10	Sequence 10, Appl
18	198	20.5	123	4	US-09-231-077D-11	Sequence 11, Appl
19	150	15.5	35	3	US-09-046-985-2	Sequence 2, Appli
20	150	15.5	35	3	US-09-474-743-2	Sequence 2, Appli
21	108	11.2	20	2	US-08-740-168A-1	Sequence 1, Appli
22	108	11.2	20	3	US-09-349-429-1	Sequence 1, Appli
23	108	11.2	20	4	US-09-315-689-1	Sequence 1, Appli
24	108	11.2	20	4	US-09-174-282-1	Sequence 1, Appli
25	108	11.2	20	4	US-09-154-302-1	Sequence 1, Appli
26	101	10.4	16	3	US-09-385-442-32	Sequence 32, Appl
27	101	10.4	22	3	US-09-046-985-7	Sequence 7, Appli
28	101	10.4	22	3	US-09-474-743-7	Sequence 7, Appli
29	82	8.5	15	4	US-09-231-077D-12	Sequence 12, Appl
30	79	8.2	682	4	US-09-489-039A-10595	Sequence 10595, A
31	79	8.2	1112	4	US-09-717-364A-27	Sequence 27, Appl
32	77	8.0	439	4	US-09-252-991A-19623	Sequence 19623, A
33	76.5	7.9	1050	4	US-09-428-711A-16	Sequence 16, Appl
34	76	7.9	506	4	US-09-252-991A-18165	Sequence 18165, A
35	75	7.7	190	3	US-09-046-985-15	Sequence 15, Appl
36	75	7.7	190	3	US-09-474-743-15	Sequence 15, Appl
37	75	7.7	587	2	US-08-871-266B-18	Sequence 18, Appl
38	75	7.7	587	2	US-09-018-864A-18	Sequence 18, Appl
39	75	7.7	587	3	US-08-871-267B-24	Sequence 24, Appl
40	75	7.7	587	3	US-09-618-419-24	Sequence 24, Appl
41	74.5	7.7	577	2	US-08-756-317-13	Sequence 13, Appl
42	74	7.6	15	4	US-09-231-077D-13	Sequence 13, Appl
43	74	7.6	1646	4	US-09-252-991A-22312	Sequence 22312, A
44	74	7.6	6396	4	US-09-410-551B-72	Sequence 72, Appl
45	73.5	7.6	443	4	US-09-252-991A-26460	Sequence 26460, A

ALIGNMENTS

RESULT 1
US-09-561-500-13
; Sequence 13, Application US/09561500
; Patent No. 6342219
; GENERAL INFORMATION:
; APPLICANT: Philip E. Thorpe
; APPLICANT: Rolf A. Brekken
; TITLE OF INVENTION: ANTIBODY COMPOSITIONS FOR SELECTIVELY INHIBITING VEGF
; FILE REFERENCE: 4001.002500
; CURRENT APPLICATION NUMBER: US/09/561,500
; CURRENT FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: 60/131,432
; PRIOR FILING DATE: 1999-04-28
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
US-09-561-500-13

Query Match 100.0%; Score 968; DB 4; Length 191;
Best Local Similarity 100.0%; Pred. No. 3.8e-112;
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
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Db        188 SFSK 191
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RESULT 2
US-09-561-108-13
; Sequence 13, Application US/09561108
; Patent No. 6342221
; GENERAL INFORMATION:
; APPLICANT: Philip E. Thorpe

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;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002584
;  CURRENT APPLICATION NUMBER: US/09/561,108
;  CURRENT FILING DATE:  2000-04-28
;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 191
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
US-09-561-108-13

  Query Match             100.0%;  Score 968;  DB 4;  Length 191;
  Best Local Similarity   100.0%;  Pred. No. 3.8e-112;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
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Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
              ||||
Db        188 SFSK 191


RESULT 3
US-09-561-526-13
; Sequence 13, Application US/09561526
; Patent No. 6416758
; GENERAL INFORMATION:
;  APPLICANT:  Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY CONJUGATE KITS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002586
;  CURRENT APPLICATION NUMBER: US/09/561,526
;  CURRENT FILING DATE:  2000-04-28
;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 191
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
US-09-561-526-13

  Query Match             100.0%;  Score 968;  DB 4;  Length 191;
  Best Local Similarity   100.0%;  Pred. No. 3.8e-112;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
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Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
              ||||
Db        188 SFSK 191


RESULT 4
US-09-561-499-13
; Sequence 13, Application US/09561499
; Patent No. 6524583
; GENERAL INFORMATION:
;  APPLICANT:  Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002582
;  CURRENT APPLICATION NUMBER: US/09/561,499
;  CURRENT FILING DATE:  2000-04-28
;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 191
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
US-09-561-499-13

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  Best Local Similarity   100.0%;  Pred. No. 3.8e-112;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
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Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
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Db        188 SFSK 191


RESULT 5
US-09-998-831-13
; Sequence 13, Application US/09998831
; Patent No. 6676941
; GENERAL INFORMATION:
;  APPLICANT: Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY
;  TITLE OF INVENTION:  INHIBITING VEGF
;  FILE REFERENCE: 4001.002584
;  CURRENT APPLICATION NUMBER: US/09/998,831
;  CURRENT FILING DATE:  2001-11-30
;  PRIOR APPLICATION NUMBER: 09/561,108
;  PRIOR FILING DATE: 2000-04-28
;  NUMBER OF SEQ ID NOS: 44
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 191
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
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;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
US-09-998-831-13

  Query Match             100.0%;  Score 968;  DB 4;  Length 191;
  Best Local Similarity   100.0%;  Pred. No. 3.8e-112;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
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Db        188 SFSK 191


RESULT 6
US-08-159-784-2
; Sequence 2, Application US/08159784
; Patent No. 5643783
;  GENERAL INFORMATION:
;    APPLICANT:  Bjorn R. Olsen
;    TITLE OF INVENTION:  NOVEL COLLAGEN AND USES THEREOF
;    NUMBER OF SEQUENCES:  9
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  U.S.A.
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      COMPUTER:  IBM PS/2 Model 50Z or 55SX
;      OPERATING SYSTEM:  MS-DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/159,784
;      FILING DATE:  December 1, 1993
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  John F. Freeman
;      REGISTRATION NUMBER:  29,066
;      REFERENCE/DOCKET NUMBER:  00246/170001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 542-5070
;      TELEFAX:  (617) 542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  195
;      TYPE:  amino acid
;      STRANDEDNESS:  N/A
;      TOPOLOGY:  N/A
US-08-159-784-2

  Query Match             99.7%;  Score 965;  DB 1;  Length 195;
  Best Local Similarity   99.5%;  Pred. No. 9.2e-112;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
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Db         12 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 71

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
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Db         72 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 131

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Db        132 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 191

Qy        181 SFSK 184
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Db        192 SFSK 195


RESULT 7
US-08-985-526-36
; Sequence 36, Application US/08985526
; Patent No. 6080728
;  GENERAL INFORMATION:
;    APPLICANT:  Mixson, James A
;    TITLE OF INVENTION:  CARRIER:DNA COMPLEXES CONTAINING DNA
;    TITLE OF INVENTION:  ENCODING ANTI-ANGIOGENIC PEPTIDES AND THEIR USE IN GENE
;    TITLE OF INVENTION:  THERAPY
;    NUMBER OF SEQUENCES:  43
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Connolly, Bove, Lodge, & Hutz
;      STREET:  1220 Market Street, P.O. Box 2207
;      CITY:  Wilmington
;      STATE:  Delaware
;      COUNTRY:  U.S.A.
;      ZIP:  19899
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/985,526
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/608,845
;      FILING DATE:  16-JUL-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  McMorrow Jr., Robert G
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (302) 658-9141
;      TELEFAX:  (302) 658-5613
;  INFORMATION FOR SEQ ID NO:  36:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  185 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
US-08-985-526-36

  Query Match             94.6%;  Score 916;  DB 3;  Length 185;
  Best Local Similarity   95.1%;  Pred. No. 1.1e-105;
  Matches  176;  Conservative    5;  Mismatches    2;  Indels    2;  Gaps    2;

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Qy         61 VRRADRGSVPIV-NLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSV 119
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Qy        120 WHGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFM 179
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Qy        180 TSFSK 184
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Db        181 TSFSR 185


RESULT 8
US-09-561-500-14
; Sequence 14, Application US/09561500
; Patent No. 6342219
; GENERAL INFORMATION:
;  APPLICANT:  Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY COMPOSITIONS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002500
;  CURRENT APPLICATION NUMBER: US/09/561,500
;  CURRENT FILING DATE:  2000-04-28
;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-09-561-500-14

  Query Match             86.8%;  Score 840;  DB 4;  Length 182;
  Best Local Similarity   85.6%;  Pred. No. 2.9e-96;
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Db        121 HGSDPNGRRLTESYCETWRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMT 180

Qy        181 S 181
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Db        181 A 181


RESULT 9
US-09-561-108-14
; Sequence 14, Application US/09561108
; Patent No. 6342221
; GENERAL INFORMATION:
;  APPLICANT:  Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002584
;  CURRENT APPLICATION NUMBER: US/09/561,108
;  CURRENT FILING DATE:  2000-04-28
;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-09-561-108-14

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  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |:|:|||||||||||||:|||||||||||||||||||||||||:||||||||||||||||
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Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Qy        181 S 181
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Db        181 A 181


RESULT 10
US-09-315-689-3
; Sequence 3, Application US/09315689
; Patent No. 6346510
; GENERAL INFORMATION:
;  APPLICANT: Folkman, Judah
;  APPLICANT: O'Reilly, Michael
;  TITLE OF INVENTION: Therapeutic Antiangiogenic Endostatin Compositions
;  FILE REFERENCE: 05213-0229
;  CURRENT APPLICATION NUMBER: US/09/315,689
;  CURRENT FILING DATE: 1999-05-20
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-315-689-3

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Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Qy        181 S 181
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Db        181 A 181


RESULT 11
US-09-561-526-14
; Sequence 14, Application US/09561526
; Patent No. 6416758
; GENERAL INFORMATION:
;  APPLICANT:  Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY CONJUGATE KITS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002586
;  CURRENT APPLICATION NUMBER: US/09/561,526
;  CURRENT FILING DATE:  2000-04-28
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;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-09-561-526-14

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  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

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Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||:|||| |||||||||    |||||||| |||| | |||||::||||||||||||
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Qy        181 S 181
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Db        181 A 181


RESULT 12
US-09-561-499-14
; Sequence 14, Application US/09561499
; Patent No. 6524583
; GENERAL INFORMATION:
;  APPLICANT:  Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION:  ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE:  4001.002582
;  CURRENT APPLICATION NUMBER: US/09/561,499
;  CURRENT FILING DATE:  2000-04-28
;  PRIOR APPLICATION NUMBER:  60/131,432
;  PRIOR FILING DATE:  1999-04-28
;  NUMBER OF SEQ ID NOS:  44
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-09-561-499-14

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  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

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              |:|:|||||||||||:|||||||||||||||||||||||:||||||||||||||||||
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Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
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Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Qy        181 S 181
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Db        181 A 181


RESULT 13
US-09-998-831-14
; Sequence 14, Application US/09998831
; Patent No. 6676941
; GENERAL INFORMATION:
;  APPLICANT: Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY
;  TITLE OF INVENTION:  INHIBITING VEGF
;  FILE REFERENCE: 4001.002584
;  CURRENT APPLICATION NUMBER: US/09/998,831
;  CURRENT FILING DATE:  2001-11-30
;  PRIOR APPLICATION NUMBER: 09/561,108
;  PRIOR FILING DATE: 2000-04-28
;  NUMBER OF SEQ ID NOS: 44
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-09-998-831-14

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  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

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Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Qy        181 S 181
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Db        181 A 181


RESULT 14
US-09-206-059-2
; Sequence 2, Application US/09206059
; Patent No. 6201104
; GENERAL INFORMATION:
;  APPLICANT: MacDonald, Nicholas
;  APPLICANT: Sim, Kim Lee
;  TITLE OF INVENTION: Angiogenesis-Inhibiting Protein Binding Peptides and
;  TITLE OF INVENTION: Proteins and Methods of Use
;  FILE REFERENCE: 05213-0370
;  CURRENT APPLICATION NUMBER: US/09/206,059
;  CURRENT FILING DATE: 1998-12-04
;  NUMBER OF SEQ ID NOS: 80
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
;   LENGTH: 183
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-206-059-2

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Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
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Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
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Qy        181 S 181
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Db        181 A 181


RESULT 15
US-09-315-689-5
; Sequence 5, Application US/09315689
; Patent No. 6346510
; GENERAL INFORMATION:
;  APPLICANT: Folkman, Judah
;  APPLICANT: O'Reilly, Michael
;  TITLE OF INVENTION: Therapeutic Antiangiogenic Endostatin Compositions
;  FILE REFERENCE: 05213-0229
;  CURRENT APPLICATION NUMBER: US/09/315,689
;  CURRENT FILING DATE: 1999-05-20
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
;   LENGTH: 178
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-315-689-5

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	968	100.0	191	14	US-10-373-561-13	Sequence 13, Appl
3	968	100.0	207	13	US-10-080-797-3	Sequence 3, Appli
4	965	99.7	184	14	US-10-131-241-46	Sequence 46, Appl
5	965	99.7	184	14	US-10-292-418-18	Sequence 18, Appl
6	965	99.7	207	12	US-09-373-938-2	Sequence 2, Appli
7	965	99.7	207	14	US-10-422-934-71	Sequence 71, Appl
8	916	94.6	185	13	US-10-036-869-36	Sequence 36, Appl
9	841	86.9	184	14	US-10-131-241-49	Sequence 49, Appl
10	841	86.9	184	14	US-10-292-418-35	Sequence 35, Appl
11	840	86.8	181	14	US-10-131-241-55	Sequence 55, Appl
12	840	86.8	182	9	US-09-998-831-14	Sequence 14, Appl
13	840	86.8	182	14	US-10-131-241-54	Sequence 54, Appl
14	840	86.8	182	14	US-10-042-347-3	Sequence 3, Appli
15	840	86.8	182	14	US-10-373-561-14	Sequence 14, Appl
16	840	86.8	183	9	US-09-873-676-2	Sequence 2, Appli
17	840	86.8	183	12	US-09-978-531-1	Sequence 1, Appli
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20	840	86.8	183	14	US-10-131-241-52	Sequence 52, Appl
21	840	86.8	183	14	US-10-292-418-4	Sequence 4, Appli
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23	840	86.8	184	16	US-10-449-609-4	Sequence 4, Appli
24	840	86.8	208	12	US-09-373-938-5	Sequence 5, Appli
25	840	86.8	385	16	US-10-449-609-6	Sequence 6, Appli
26	840	86.8	682	15	US-10-264-049-3010	Sequence 3010, Ap
27	840	86.8	684	10	US-09-961-403-5	Sequence 5, Appli
28	840	86.8	1516	14	US-10-060-036-166	Sequence 166, App
29	840	86.8	1516	15	US-10-431-642-3	Sequence 3, Appli
30	839	86.7	180	14	US-10-131-241-56	Sequence 56, Appl
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32	831	85.8	230	10	US-09-938-391-2	Sequence 2, Appli
33	828	85.5	180	14	US-10-131-241-47	Sequence 47, Appl
34	823	85.0	184	12	US-10-210-172-162	Sequence 162, App
35	822	84.9	178	14	US-10-131-241-60	Sequence 60, Appl
36	822	84.9	178	14	US-10-042-347-5	Sequence 5, Appli
37	822	84.9	179	14	US-10-131-241-57	Sequence 57, Appl
38	791	81.7	171	12	US-09-978-531-3	Sequence 3, Appli
39	621	64.2	139	12	US-09-978-531-12	Sequence 12, Appl
40	583	60.2	160	12	US-10-210-172-164	Sequence 164, App
41	574	59.3	1279	12	US-10-087-192-1455	Sequence 1455, Ap
42	498	51.4	160	12	US-10-210-172-166	Sequence 166, App
43	294	30.4	63	9	US-09-822-540A-1	Sequence 1, Appli
44	294	30.4	63	12	US-09-978-531-5	Sequence 5, Appli
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ALIGNMENTS

RESULT 1
US-09-998-831-13
; Sequence 13, Application US/09998831
; Patent No. US20020119153A1
; GENERAL INFORMATION:
; APPLICANT: Philip E. Thorpe
; APPLICANT: Rolf A. Brekken
; TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY
; TITLE OF INVENTION: INHIBITING VEGF
; FILE REFERENCE: 4001.002584
; CURRENT APPLICATION NUMBER: US/09/998,831
; CURRENT FILING DATE: 2001-11-30
; PRIOR APPLICATION NUMBER: 09/561,108
; PRIOR FILING DATE: 2000-04-28
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
US-09-998-831-13

Query Match 100.0%; Score 968; DB 9; Length 191;
Best Local Similarity 100.0%; Pred. No. 1.1e-100;
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 2
US-10-373-561-13
; Sequence 13, Application US/10373561
; Publication No. US20030175276A1
; GENERAL INFORMATION:
; APPLICANT: Philip E. Thorpe
; APPLICANT: Rolf A. Brekken
; TITLE OF INVENTION: ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF
; FILE REFERENCE: 4001.002582
; CURRENT APPLICATION NUMBER: US/10/373,561
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US/09/561,499
; PRIOR FILING DATE: 2000-04-28
; PRIOR APPLICATION NUMBER: 60/131,432
; PRIOR FILING DATE: 1999-04-28
; NUMBER OF SEQ ID NOS: 44
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: SYNTHETIC
US-10-373-561-13

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  Query Match            100.0%;  Score 968;  DB 14;  Length 191;
  Best Local Similarity  100.0%;  Pred. No. 1.1e-100;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
              ||||
Db        188 SFSK 191
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RESULT 3
US-10-080-797-3
; Sequence 3, Application US/10080797
; Publication No. US20020183253A1
; GENERAL INFORMATION:
; APPLICANT: Campochiaro, Peter A.
; APPLICANT: Dixon, Katharine H.
; APPLICANT: Brazzell, Romulus K.
; TITLE OF INVENTION: METHOD FOR TREATING OCULAR
; TITLE OF INVENTION: NEOVASCULARIZATION
; FILE REFERENCE: 4-31881A
; CURRENT APPLICATION NUMBER: US/10/080,797
; CURRENT FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 207
; TYPE: PRT
; ORGANISM: Mouse
US-10-080-797-3

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  Query Match            100.0%;  Score 968;  DB 13;  Length 207;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-100;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 83

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         84 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 143

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

Qy        181 SFSK 184
              ||||
Db        204 SFSK 207
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RESULT 4
US-10-131-241-46
; Sequence 46, Application US/10131241
; Publication No. US20030012792A1
; GENERAL INFORMATION:
; APPLICANT: Holaday, John W.
; APPLICANT: Fortier, Anne H.
; TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Prolifera
; TITLE OF INVENTION: and Regulating Angiogenesis Using Cancer Markers
; FILE REFERENCE: 05213-0344 43170-271565
; CURRENT APPLICATION NUMBER: US/10/131,241
; CURRENT FILING DATE: 2002-07-22
; PRIOR APPLICATION NUMBER: US 09/413,049
; PRIOR FILING DATE: 1999-10-06
; PRIOR APPLICATION NUMBER: US 09/316,802
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: US 60/086,586
; PRIOR FILING DATE: 1998-05-22
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 46
; LENGTH: 184
; TYPE: PRT
; ORGANISM: Murinae sp.
US-10-131-241-46

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  Query Match             99.7%;  Score 965;  DB 14;  Length 184;
  Best Local Similarity   99.5%;  Pred. No. 2.4e-100;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||||||||||||||||||||||||||:||||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184
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RESULT 5
US-10-292-418-18
; Sequence 18, Application US/10292418
; Publication No. US20030139365A1

```
; GENERAL INFORMATION:
;  APPLICANT: Lo, Kin-Ming
;  APPLICANT:  Li, Yue
;  APPLICANT:  Gillies, Stephen D
;  TITLE OF INVENTION: Expression and Export of Angiogenesis Inhibitors as
;  TITLE OF INVENTION:  Immunofusins
;  FILE REFERENCE: LEX-006C1
;  CURRENT APPLICATION NUMBER: US/10/292,418
;  CURRENT FILING DATE:  2002-11-12
;  PRIOR APPLICATION NUMBER: 09/383,315
;  PRIOR FILING DATE: 1999-08-25
;  PRIOR APPLICATION NUMBER: US 60/097,883
;  PRIOR FILING DATE: 1998-08-25
;  NUMBER OF SEQ ID NOS: 54
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 18
;   LENGTH: 184
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-10-292-418-18

  Query Match           99.7%;  Score 965;  DB 14;  Length 184;
  Best Local Similarity  99.5%;  Pred. No. 2.4e-100;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184


RESULT 6
US-09-373-938-2
; Sequence 2, Application US/09373938
; Publication No. US20020115202A1
; GENERAL INFORMATION:
;  APPLICANT: Hallenbeck, Paul
;  APPLICANT:  Chen, Cheauyun Theresa
;  TITLE OF INVENTION: ADENOVIRAL VECTORS INCLUDING DNA SEQUENCES ENCODING ANGIOGENIC IN
;  FILE REFERENCE: 4-30899P1
;  CURRENT APPLICATION NUMBER: US/09/373,938
;  CURRENT FILING DATE:  1999-08-13
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 207
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-09-373-938-2

  Query Match           99.7%;  Score 965;  DB 12;  Length 207;
  Best Local Similarity  99.5%;  Pred. No. 2.8e-100;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 83

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||
Db         84 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 143

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

Qy        181 SFSK 184
              ||||
Db        204 SFSK 207


RESULT 7
US-10-422-934-71
; Sequence 71, Application US/10422934
; Publication No. US20030186841A1
; GENERAL INFORMATION:
;  APPLICANT: Barbas, Carlos F., III
;  APPLICANT:  Kadan, Michael
;  APPLICANT:  Beerli, Roger
;  TITLE OF INVENTION: LIGAND ACTIVATED TRANSCRIPTIONAL REGULATOR PROTEINS
;  FILE REFERENCE: 22908-1227C
;  CURRENT APPLICATION NUMBER: US/10/422,934
;  CURRENT FILING DATE:  2003-04-23
;  PRIOR APPLICATION NUMBER: 09/586,625
;  PRIOR FILING DATE: 2000-06-02
;  PRIOR APPLICATION NUMBER: 09/433,042
;  PRIOR FILING DATE: 1999-10-25
;  NUMBER OF SEQ ID NOS: 92
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 71
;   LENGTH: 207
;   TYPE: PRT
;   ORGANISM: Muridae
US-10-422-934-71

  Query Match           99.7%;  Score 965;  DB 14;  Length 207;
  Best Local Similarity  99.5%;  Pred. No. 2.8e-100;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 83

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||
Db         84 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 143

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

Qy        181 SFSK 184
              ||||
Db        204 SFSK 207


RESULT 8
US-10-036-869-36
; Sequence 36, Application US/10036869
; Publication No. US20020151516A1
;   GENERAL INFORMATION:
;        APPLICANT: Mixson, James A
;        TITLE OF INVENTION: CARRIER:DNA COMPLEXES CONTAINING DNA
;                            ENCODING ANTI-ANGIOGENIC PEPTIDES AND THEIR USE IN GENE
;                            THERAPY
;        NUMBER OF SEQUENCES: 43
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Connolly, Bove, Lodge, & Hutz
;             STREET: 1220 Market Street, P.O. Box 2207
;             CITY: Wilmington
;             STATE: Delaware
;             COUNTRY: U.S.A.
;             ZIP: 19899
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
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;              COMPUTER: IBM PC compatible
;              OPERATING SYSTEM: PC-DOS/MS-DOS
;              SOFTWARE: PatentIn Release #1.0, Version #1.25
;         CURRENT APPLICATION DATA:
;              APPLICATION NUMBER: US/10/036,869
;              FILING DATE: 29-No. US20020151516A1-2001
;              CLASSIFICATION: <Unknown>
;         PRIOR APPLICATION DATA:
;              APPLICATION NUMBER: US/08/985,526
;              FILING DATE: <Unknown>
;              APPLICATION NUMBER: US 08/608,845
;              FILING DATE: 16-JUL-1996
;         ATTORNEY/AGENT INFORMATION:
;              NAME: McMorrow Jr., Robert G
;         TELECOMMUNICATION INFORMATION:
;              TELEPHONE: (302) 658-9141
;              TELEFAX: (302) 658-5613
;    INFORMATION FOR SEQ ID NO: 36:
;         SEQUENCE CHARACTERISTICS:
;              LENGTH: 185 amino acids
;              TYPE: amino acid
;              TOPOLOGY: linear
;         SEQUENCE DESCRIPTION: SEQ ID NO: 36:
US-10-036-869-36

  Query Match             94.6%;  Score 916;  DB 13;  Length 185;
  Best Local Similarity   95.1%;  Pred. No. 8.1e-95;
  Matches  176;  Conservative    5;  Mismatches    2;  Indels    2;  Gaps    2;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |||||||||||||||||||||||||||||||  || ||||||||||||||||||||
Db          2 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFNNAR-VGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIV-NLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSV 119
              |||||||||||| ||:|||||||||||||||||||||||||||||||||||||||:||
Db         61 VRRADRGSVPIVQNLRDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQRSV 120

Qy        120 WHGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFM 179
              |||||||||||||||||||||||||||||||||||||||||:|||||:||||||||||||
Db        121 WHGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQRAASCHDSYIVLCIENSFM 180

Qy        180 TSFSK 184
              ||||:
Db        181 TSFSR 185


RESULT 9
US-10-131-241-49
; Sequence 49, Application US/10131241
; Publication No. US20030012792A1
; GENERAL INFORMATION:
;  APPLICANT: Holaday, John W.
;  APPLICANT:  Fortier, Anne H.
;  TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Prolifer
;  TITLE OF INVENTION:  and Regulating Angiogenesis Using Cancer Markers
;  FILE REFERENCE: 05213-0344  43170-271565
;  CURRENT APPLICATION NUMBER: US/10/131,241
;  CURRENT FILING DATE:  2002-07-22
;  PRIOR APPLICATION NUMBER: US 09/413,049
;  PRIOR FILING DATE: 1999-10-06
;  PRIOR APPLICATION NUMBER: US 09/316,802
;  PRIOR FILING DATE: 1999-05-21
;  PRIOR APPLICATION NUMBER: US 60/086,586
;  PRIOR FILING DATE: 1998-05-22
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 49
;   LENGTH: 184
;   TYPE: PRT
;   ORGANISM: Canine sp.
US-10-131-241-49

  Query Match             86.9%;  Score 841;  DB 14;  Length 184;
  Best Local Similarity   84.2%;  Pred. No. 2.3e-86;
  Matches  155;  Conservative   17;  Mismatches   12;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |||||||||||||||||:|  |||||||||||||||||||| ||:||||||||||||||||
Db          1 HTHQDFQPVLHLVALNSPQPGGMRGIRGADFQCFQQARAAGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||  ||:|||:|||| |||::|||||:|||:||||||||||||:|||||:||||
Db         61 VRRADRTGVPVVNLRDEVLFPSWEALFSGSEGQLKPGARIFSFDGRDVLQHPAWPRKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||||||| :|||||||||   |||||||||:||||||:|||| ::::|||||||||
Db        121 HGSDPSGRRLTDSYCETWRTEAPAATGQASSLLAGRLLEQEAASCRHAFVVLCIENSVMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184


RESULT 10
US-10-292-418-35
; Sequence 35, Application US/10292418
; Publication No. US20030139365A1
; GENERAL INFORMATION:
;  APPLICANT: Lo, Kin-Ming
;  APPLICANT:  Li, Yue
;  APPLICANT:  Gillies, Stephen D
;  TITLE OF INVENTION: Expression and Export of Angiogenesis Inhibitors as
;  TITLE OF INVENTION:  Immunofusins
;  FILE REFERENCE: LEX-006C1
;  CURRENT APPLICATION NUMBER: US/10/292,418
;  CURRENT FILING DATE:  2002-11-12
;  PRIOR APPLICATION NUMBER: 09/383,315
;  PRIOR FILING DATE: 1999-08-25
;  PRIOR APPLICATION NUMBER: US 60/097,883
;  PRIOR FILING DATE: 1998-08-25
;  NUMBER OF SEQ ID NOS: 54
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 35
;   LENGTH: 184
;   TYPE: PRT
;   ORGANISM: Canis familiaris
US-10-292-418-35

  Query Match             86.9%;  Score 841;  DB 14;  Length 184;
  Best Local Similarity   84.2%;  Pred. No. 2.3e-86;
  Matches  155;  Conservative   17;  Mismatches   12;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |||||||||||||||||:|  |||||||||||||||||||| ||:||||||||||||||||
Db          1 HTHQDFQPVLHLVALNSPQPGGMRGIRGADFQCFQQARAAGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||  ||:|||:|||| |||::|||||:|||:||||||||||||:|||||:||||
Db         61 VRRADRTGVPVVNLRDEVLFPSWEALFSGSEGQLKPGARIFSFDGRDVLQHPAWPRKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||||||| :|||||||||   |||||||||:||||||:|||| ::::|||||||||
Db        121 HGSDPSGRRLTDSYCETWRTEAPAATGQASSLLAGRLLEQEAASCRHAFVVLCIENSVMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184


RESULT 11
US-10-131-241-55
; Sequence 55, Application US/10131241
; Publication No. US20030012792A1
; GENERAL INFORMATION:
;  APPLICANT: Holaday, John W.
;  APPLICANT:  Fortier, Anne H.
```

```
;  TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Prolifer
;  TITLE OF INVENTION:  and Regulating Angiogenesis Using Cancer Markers
;  FILE REFERENCE: 05213-0344  43170-271565
;  CURRENT APPLICATION NUMBER: US/10/131,241
;  CURRENT FILING DATE:  2002-07-22
;  PRIOR APPLICATION NUMBER: US 09/413,049
;  PRIOR FILING DATE: 1999-10-06
;  PRIOR APPLICATION NUMBER: US 09/316,802
;  PRIOR FILING DATE: 1999-05-21
;  PRIOR APPLICATION NUMBER: US 60/086,586
;  PRIOR FILING DATE: 1998-05-22
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 55
;   LENGTH: 181
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-131-241-55

  Query Match             86.8%;  Score 840;  DB 14;  Length 181;
  Best Local Similarity   85.6%;  Pred. No. 2.9e-86;
  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |:|:|||||||||||||:|||||||||||||||||||||||||:||||||||||||||||
Db          1 HSHRDFQPVLHLVALNSPLSGGMRGIRGADFQCFQQARAVGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:|||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||:|||| ||||||||||   |||||||| |||| | |||||::|||||||||||||
Db        121 HGSDPNGRRLTESYCETWRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMT 180

Qy        181 S 181
              :
Db        181 A 181


RESULT 12
US-09-998-831-14
; Sequence 14, Application US/09998831
; Patent No. US20020119153A1
; GENERAL INFORMATION:
;  APPLICANT: Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION: ANTIBODY CONJUGATE COMPOSITIONS FOR SELECTIVELY
;  TITLE OF INVENTION:  INHIBITING VEGF
;  FILE REFERENCE: 4001.002584
;  CURRENT APPLICATION NUMBER: US/09/998,831
;  CURRENT FILING DATE:  2001-11-30
;  PRIOR APPLICATION NUMBER: 09/561,108
;  PRIOR FILING DATE: 2000-04-28
;  NUMBER OF SEQ ID NOS: 44
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-09-998-831-14

  Query Match             86.8%;  Score 840;  DB 9;  Length 182;
  Best Local Similarity   85.6%;  Pred. No. 2.9e-86;
  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |:|:|||||||||||||:|||||||||||||||||||||||||:||||||||||||||||
Db          1 HSHRDFQPVLHLVALNSPLSGGMRGIRGADFQCFQQARAVGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:|||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||:|||| ||||||||||   |||||||| |||| | |||||::|||||||||||||
Db        121 HGSDPNGRRLTESYCETWRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMT 180

Qy        181 S 181
              :
Db        181 A 181


RESULT 13
US-10-131-241-54
; Sequence 54, Application US/10131241
; Publication No. US20030012792A1
; GENERAL INFORMATION:
;  APPLICANT: Holaday, John W.
;  APPLICANT:  Fortier, Anne H.
;  TITLE OF INVENTION: Compositions and Methods for Inhibiting Endothelial Cell Prolifera
;  TITLE OF INVENTION:  and Regulating Angiogenesis Using Cancer Markers
;  FILE REFERENCE: 05213-0344  43170-271565
;  CURRENT APPLICATION NUMBER: US/10/131,241
;  CURRENT FILING DATE:  2002-07-22
;  PRIOR APPLICATION NUMBER: US 09/413,049
;  PRIOR FILING DATE: 1999-10-06
;  PRIOR APPLICATION NUMBER: US 09/316,802
;  PRIOR FILING DATE: 1999-05-21
;  PRIOR APPLICATION NUMBER: US 60/086,586
;  PRIOR FILING DATE: 1998-05-22
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 54
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-131-241-54

  Query Match             86.8%;  Score 840;  DB 14;  Length 182;
  Best Local Similarity   85.6%;  Pred. No. 2.9e-86;
  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |:|:|||||||||||||:|||||||||||||||||||||||||:||||||||||||||||
Db          1 HSHRDFQPVLHLVALNSPLSGGMRGIRGADFQCFQQARAVGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:|||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||:|||| ||||||||||   |||||||| |||| | |||||::|||||||||||||
Db        121 HGSDPNGRRLTESYCETWRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMT 180

Qy        181 S 181
              :
Db        181 A 181


RESULT 14
US-10-042-347-3
; Sequence 3, Application US/10042347
; Publication No. US20030114370A1
; GENERAL INFORMATION:
;  APPLICANT: O'Reilly, Michael S.
;  APPLICANT:  Folkman, M. Judah
;  TITLE OF INVENTION: Nucleic Acid Molecules Encoding Endostatin Protein and Peptide Fr
;  TITLE OF INVENTION:  Thereof
;  FILE REFERENCE: 05213-0880  (43170-249874)
;  CURRENT APPLICATION NUMBER: US/10/042,347
;  CURRENT FILING DATE:  2002-01-11
;  PRIOR APPLICATION NUMBER: US 09/315,689
```

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;  PRIOR FILING DATE: 1999-05-20
;  PRIOR APPLICATION NUMBER: US 60/106,343
;  PRIOR FILING DATE: 1998-10-30
;  PRIOR APPLICATION NUMBER: US 09/154,302
;  PRIOR FILING DATE: 1998-09-16
;  PRIOR APPLICATION NUMBER: US 08/740,168
;  PRIOR FILING DATE: 1996-10-22
;  PRIOR APPLICATION NUMBER: US 60/005,835
;  PRIOR FILING DATE: 1995-10-23
;  PRIOR APPLICATION NUMBER: US 60/023,070
;  PRIOR FILING DATE: 1996-08-02
;  PRIOR APPLICATION NUMBER: US 60/026,263
;  PRIOR FILING DATE: 1996-09-17
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-042-347-3

  Query Match             86.8%;  Score 840;  DB 14;  Length 182;
  Best Local Similarity   85.6%;  Pred. No. 2.9e-86;
  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |:|:|||||||||||:|||||||||||||||||||||||:||||||||||||||||
Db          1 HSHRDFQPVLHLVALNSPLSGGMRGIRGADFQCFQQARAVGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||:|||| |||||||||   |||||||| |||| | |||||::||||||||||||
Db        121 HGSDPNGRRLTESYCETWRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMT 180

Qy        181 S 181
              :
Db        181 A 181


RESULT 15
US-10-373-561-14
; Sequence 14, Application US/10373561
; Publication No. US20030175276A1
; GENERAL INFORMATION:
;  APPLICANT: Philip E. Thorpe
;  APPLICANT:  Rolf A. Brekken
;  TITLE OF INVENTION: ANTIBODY METHODS FOR SELECTIVELY INHIBITING VEGF
;  FILE REFERENCE: 4001.002582
;  CURRENT APPLICATION NUMBER: US/10/373,561
;  CURRENT FILING DATE:  2003-02-24
;  PRIOR APPLICATION NUMBER: US/09/561,499
;  PRIOR FILING DATE: 2000-04-28
;  PRIOR APPLICATION NUMBER: 60/131,432
;  PRIOR FILING DATE: 1999-04-28
;  NUMBER OF SEQ ID NOS: 44
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 14
;   LENGTH: 182
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  SYNTHETIC
;   OTHER INFORMATION: PEPTIDE
US-10-373-561-14

  Query Match             86.8%;  Score 840;  DB 14;  Length 182;
  Best Local Similarity   85.6%;  Pred. No. 2.9e-86;
  Matches  155;  Conservative   15;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |:|:|||||||||||:|||||||||||||||||||||||:||||||||||||||||
Db          1 HSHRDFQPVLHLVALNSPLSGGMRGIRGADFQCFQQARAVGLAGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||| :|||||||||:| |||::|||||:| |:||||||||||:|||||| |||||||
Db         61 VRRADRAAVPIVNLKDELLFPSWEALFSGSEGPLKPGARIFSFDGKDVLRHPTWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||:|||| |||||||||   |||||||| |||| | |||||::||||||||||||
Db        121 HGSDPNGRRLTESYCETWRTEAPSATGQASSLLGGRLLGQSAASCHHAYIVLCIENSFMT 180

Qy        181 S 181
              :
Db        181 A 181


Search completed: August 31, 2004, 20:09:35
Job time : 127 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 31, 2004, 19:42:20 ; Search time 120 Seconds
(without alignments)
433.240 Million cell updates/sec

Title: US-09-589-777C-2
Perfect score: 968
Sequence: 1 HTHQDFQPVLHLVALNTPLS.....CHNSYIVLCIENSFMTSFSK 184

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	968	100.0	184	4	AAB49380	Aab49380 Murine en
2	968	100.0	191	3	AAB28398	Aab28398 Murine en
3	968	100.0	191	5	AAU77950	Aau77950 Amino aci
4	968	100.0	207	5	ABB79902	Abb79902 Mouse end
5	965	99.7	184	2	AAY08689	Aay08689 Murine en
6	965	99.7	184	3	AAY70258	Aay70258 Murine an
7	965	99.7	184	5	ABG31793	Abg31793 Human end
8	965	99.7	207	4	AAE02031	Aae02031 Murine en
9	965	99.7	207	4	AAB71930	Aab71930 Murine en
10	965	99.7	218	2	AAY08691	Aay08691 Murine ge
11	965	99.7	580	2	AAY08692	Aay08692 Murine ge
12	965	99.7	1288	2	AAW26328	Aaw26328 Mouse alp
13	963	99.5	184	2	AAY18409	Aay18409 Endostati
14	960	99.2	1288	2	AAW92297	Aaw92297 Mouse alp
15	950	98.1	684	2	AAY25114	Aay25114 Mouse alp
16	946	97.7	183	5	AAM49504	Aam49504 Mouse end
17	916	94.6	185	2	AAY06197	Aay06197 Anti-angi
18	855	88.3	184	5	ABG31794	Abg31794 Murine en
19	841	86.9	184	3	AAY70265	Aay70265 Canine an
20	840	86.8	181	4	AAU00898	Aau00898 Human End
21	840	86.8	182	3	AAY59622	Aay59622 Human end
22	840	86.8	182	3	AAY94323	Aay94323 Human end
23	840	86.8	182	3	AAB28399	Aab28399 Human end
24	840	86.8	182	4	AAU00897	Aau00897 Human End
25	840	86.8	182	5	AAU77951	Aau77951 Amino aci
26	840	86.8	183	2	AAY02113	Aay02113 SEQ ID 76
27	840	86.8	183	2	AAY08693	Aay08693 Human end
28	840	86.8	183	3	AAY70252	Aay70252 Human ang
29	840	86.8	183	3	AAY90771	Aay90771 Human ang
30	840	86.8	183	3	AAB16451	Aab16451 Human end
31	840	86.8	183	3	AAB30493	Aab30493 Amino aci
32	840	86.8	183	4	AAB49379	Aab49379 Human end
33	840	86.8	183	4	AAU00896	Aau00896 Human End
34	840	86.8	183	5	ABB79901	Abb79901 Human end
35	840	86.8	183	5	AAM49503	Aam49503 Human end
36	840	86.8	183	5	AAM48895	Aam48895 Human end
37	840	86.8	183	5	AAU97132	Aau97132 Human end
38	840	86.8	183	6	AAG79753	Aag79753 Human end
39	840	86.8	195	3	AAW90874	Aaw90874 Human HMW
40	840	86.8	216	3	AAB30495	Aab30495 Amino aci
41	840	86.8	275	5	AAU76689	Aau76689 Synthetic
42	840	86.8	310	5	AAU76688	Aau76688 Human col
43	840	86.8	513	5	ABG73586	Abg73586 Human End
44	840	86.8	682	5	ABP41878	Abp41878 Human ova
45	840	86.8	684	2	AAW26327	Aaw26327 Human alp

ALIGNMENTS

RESULT 1
AAB49380
ID AAB49380 standard; protein; 184 AA.
XX
AC AAB49380;
XX
DT 02-MAR-2001 (first entry)
XX
DE Murine endostatin SEQ ID NO: 4.
XX
KW Endostatin; antiangiogenic; angiogenesis; human; mouse; chicken; cancer;
KW inflammation; angiogenesis-dependent disease.
XX
OS Mus musculus.
XX
PN WO200067771-A1.
XX
PD 16-NOV-2000.
XX
PF 02-MAY-2000; 2000WO-US012063.
XX
PR 06-MAY-1999; 99US-0132907P.
PR 14-JUL-1999; 99US-00353333.
XX
PA (BURN-) BURNHAM INST.
XX
PI Vuori K;
XX
DR WPI; 2001-040937/05.
DR N-PSDB; AAC88290.
XX
PT Endostatin peptide comprising at least four endostatin amino acid
PT residues are e.g. angiogenesis inhibitors for treating cancer and
PT diabetic retinopathy.
XX
PS Disclosure; Fig 1; 146pp; English.
XX
CC The present invention provides endostatin peptides which can be used in
CC the modulation of angiogenesis. This is useful in the treatment of
CC cancers, inflammation, rheumatoid arthritis, chronic articular
CC rheumatism, psoriasis, disorders associated with inopportune invasion of
CC vessels such as diabetic retinopathy, neovascular glaucoma, retinopathy
CC of prematurity, macular degeneration, corneal graft rejection,
CC retrolental fibroplasia, rubeosis, capillary proliferation in
CC atherosclerotic plaques and osteoporosis. Other angiogenesis-dependent
CC diseases include Osler-Webber syndrome, myocardial angiogenesis, plaque
CC neovasculisation, telangiectasia, haemophiliac joints and wound
CC granulation. In addition, the peptides can be used as birth control

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CC   agents
XX
SQ   Sequence 184 AA;

  Query Match             100.0%;  Score 968;  DB 4;  Length 184;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-107;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184


RESULT 2
AAB28398
ID   AAB28398 standard; protein; 191 AA.
XX
AC   AAB28398;
XX
DT   19-FEB-2001  (first entry)
XX
DE   Murine endostatin.
XX
KW   Murine; endostatin; cytostatic; antiproliferative;
KW   vascular endothelial growth factor; VEGF; antibody; VEGF2 receptor;
KW   cancer; vascularised solid tumour.
XX
OS   Mus sp.
XX
PN   WO200064946-A2.
XX
PD   02-NOV-2000.
XX
PF   28-APR-2000; 2000WO-US011367.
XX
PR   28-APR-1999;   99US-0131432P.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Thorpe PE,  Brekken RA;
XX
DR   WPI; 2000-687317/67.
DR   N-PSDB; AAC67777.
XX
PT   Immunogenic composition for the treatment and diagnosis of cancer
PT   comprises an anti-VEGF (vascular endothelial growth factor) antibody
PT   binding the same epitope as the monoclonal antibody ATCC PTA 1595.
XX
PS   Example 10; Page 290-291; 298pp; English.
XX
CC   The present invention relates to anti-Vascular Endothelial Growth Factor
CC   (VEGF) antibodies that bind to the same epitope as the monoclonal
CC   antibody ATCC PTA 1595 and which significantly inhibit VEGF binding to
CC   the VEGF receptor VEGFR2, without inhibiting VEGF binding to the VEGF
CC   receptor VEGFR1. The present sequence is murine endostatin. Endostatin
CC   may be conjugated onto the anti-VEGF antibodies of the present invention.
CC   The anti-VEGF antibodies of the present invention are useful for the
CC   treatment and diagnosis of cancer, especially vascularised solid tumours
XX
SQ   Sequence 191 AA;

  Query Match             100.0%;  Score 968;  DB 3;  Length 191;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-107;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
              ||||
Db        188 SFSK 191


RESULT 3
AAU77950
ID   AAU77950 standard; protein; 191 AA.
XX
AC   AAU77950;
XX
DT   02-JUL-2002  (first entry)
XX
DE   Amino acid sequence for mouse endostatin.
XX
KW   Mouse; immunoconjugate; anti-vascular endothelial growth factor antibody;
KW   anti-VEGF antibody; monoclonal antibody 2C3 ATCC PTA 1595; VEGF receptor;
KW   VEGFR2; KDR/Flk-1; VEGFR1; Flt-1; angiogenesis; macular degeneration;
KW   ocular neovascular disease; cancer; vascularised solid tumour; AIDS;
KW   metastatic tumour; endothelial cell proliferation; inflammatory disorder;
KW   atherosclerosis; diabetic retinopathy; corneal graft rejection;
KW   acquired immune deficiency syndrome; infection; restenosis; fungal ulcer;
KW   sickle cell anaemia; endometriosis; endostatin.
XX
OS   Mus sp.
XX
PN   AU200179401-A.
XX
PD   06-DEC-2001.
XX
PF   12-OCT-2001; 2001AU-00079401.
XX
PR   28-APR-2000; 2000AU-00048049.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Thorpe PE,  Brekken RA;
XX
DR   WPI; 2002-281368/33.
DR   N-PSDB; ABK47719.
XX
PT   Immunoconjugate compositions for treating cancer by inhibiting
PT   angiogenesis and for delivering a diagnostic agent to tumor, comprises
PT   anti-vascular endothelial growth factor antibody attached to a biological
PT   agent.
XX
PS   Example 10; Page 11-12 (Sequence listing); 299pp; English.
XX
CC   The present invention relates to antibody-based compositions comprising
CC   an immunoconjugate such as anti-vascular endothelial growth factor (VEGF)
CC   antibody (Ab) (or its antigen-binding fragment), attached to a biological
CC   agent, where the Ab binds to the same epitope as the monoclonal antibody
CC   (MAb) 2C3 ATCC PTA 1595, and significantly inhibits VEGF binding to the
CC   VEGF receptor VEGFR2 (KDR/Flk-1) without inhibiting VEGF binding to the
CC   VEGF receptor VEGFR1 (Flt-1). The compositions of the invention are
CC   useful in therapy, and diagnosis, for inhibiting angiogenesis in an
CC   animal having ocular neovascular disease or macular degeneration, and for
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CC   delivering a biological agent to a vascularised tumour. The compositions
CC   can also be used for treating cancer and subjects at risk of developing,
CC   a vascularised solid tumour, a metastatic tumour or metastases from a
CC   primary tumour. The composition is useful for specifically inhibiting
CC   VEGF-induced endothelial cell proliferation, without significantly
CC   inhibiting VEGF-induced macrophage, osteoclast or chondroclast function.
CC   The compositions can be used for treating various diseases such as
CC   inflammatory disorders, atherosclerosis, diabetic retinopathy,
CC   restenosis, acquired immune deficiency syndrome (AIDS), blood borne
CC   tumours, corneal graft rejection, Crohn's disease, fungal ulcers,
CC   infections, sickle cell anaemia, and endometriosis. The present sequence
CC   represents mouse endostatin. Endostatin may be attached or functionally
CC   associated with anti-VEGF antibodies
XX
SQ   Sequence 191 AA;

  Query Match             100.0%;  Score 968;  DB 5;  Length 191;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-107;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          8 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 67

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         68 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 127

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        128 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 187

Qy        181 SFSK 184
              ||||
Db        188 SFSK 191


RESULT 4
ABB79902
ID   ABB79902 standard; protein; 207 AA.
XX
AC   ABB79902;
XX
DT   05-DEC-2002  (first entry)
XX
DE   Mouse endostatin.
XX
KW   Endostatin; mouse; ophthalmological; ocular neovascularisation;
KW   choroidal neovascularisation; gene therapy.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 117
FT                   /note= "encoded by GTG"
XX
PN   WO200267971-A2.
XX
PD   06-SEP-2002.
XX
PF   21-FEB-2002; 2002WO-US005336.
XX
PR   22-FEB-2001; 2001US-0270787P.
PR   04-APR-2001; 2001US-0281296P.
XX
PA   (NOVS ) NOVARTIS AG.
XX
PI   Brazzell RK,  Campochiaro PA,  Dixon KH;
XX
DR   WPI; 2002-698636/75.
DR   N-PSDB; ABQ81194.
XX
PT   Treating or preventing choroidal neovascularization comprises increasing
PT   the amount of endostatin in ocular tissues of afflicted individuals to a
PT   choroidal neovascularization inhibiting level.
XX
PS   Disclosure; Page 40; 44pp; English.
XX
CC   The present sequence is the protein sequence of murine endostatin plus
CC   the murine Ig kappa leader sequence. A claimed method for the treatment
CC   of ocular neovascularisation, especially choroidal neovascularisation,
CC   involves increasing the level of endostatin in ocular tissue, especially
CC   the level of human endostatin (see ABB79901), its fragment, derivative or
CC   variant. The increase is effected by administering a viral vector,
CC   especially an adenovirus, adeno-associated virus, a retrovirus or
CC   lentivirus vector, comprising an endostatin-encoding nucleic acid. Cells
CC   secreting endostatin may be encapsulated and implanted within an
CC   individual. The method is used when ocular neovascularisation is caused
CC   by histoplasmosis, pathological myopia, angioid streaks, anterior
CC   ischaemic optic neuropathy, bacterial endocarditis, Best's disease,
CC   birdshot retinochoroidopathy, choroidal haemangioma, choroidal naevi,
CC   choroidal nonperfusion, choroidal osteomas, choroidal rupture,
CC   choroideraemia, chronic retinal detachment, coloboma of the retina,
CC   Drusen, endogenous Candida endophthalmitis, extrapapillary hamartoma of
CC   the retinal pigmented epithelium, fundus flavimaculatus, idiopathic,
CC   macular hole, malignant melanoma, membranproliferative glomerulonephritis
CC   (type II), metallic intraocular foreign body, morning glory disc
CC   syndrome, multiple evanescent white-dot syndrome, neovascularisation of
CC   ora serrata, operating microscope burn, optic nerve head pits,
CC   photocoagulation, punctate inner choroidopathy, rubella, sarcoidosis,
CC   serpiginous or geographic choroiditis, subretinal fluid drainage, tiled
CC   disc syndrome, Toxoplasma retinochoroiditis, tuberculosis, Vogt-Koyanagi-
CC   Harada syndrome, diabetic retinopathy, non-diabetic retinopathy, brain
CC   vein occlusion, central retinal vein occlusion, retinopathy in premature
CC   infants, rubeosis iridis, neovascular glaucoma, perifoveal
CC   telangiectasis, sickle cell retinopathy, Eale's disease, retinal
CC   vasculitis, Von Hippel Lindau disease, radiation retinopathy, retinal
CC   cryoinjury, retinitis pigmentosa, retinochoroidal coloboma, corneal
CC   neovascularisation due to herpes simplex keratitis, corneal ulcers,
CC   keratoplasty, pterigyia and trauma (all claimed)
XX
SQ   Sequence 207 AA;

  Query Match             100.0%;  Score 968;  DB 5;  Length 207;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-107;
  Matches  184;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 83

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         84 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 143

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

Qy        181 SFSK 184
              ||||
Db        204 SFSK 207


RESULT 5
AAY08689
ID   AAY08689 standard; protein; 184 AA.
XX
AC   AAY08689;
XX
DT   10-AUG-1999  (first entry)
XX
DE   Murine endostatin protein fragment.
XX
KW   Plasminogen; murine; angiostatin; endostatin; gene therapy; vector;
KW   anti-angiogenic; attenuation; cytostatic; anti-diabetic; ophthalmology;
```

KW tumour growth; solid tumour; diabetic retinopathy; retina.
XX
OS Mus sp.
XX
PN WO9926480-A1.
XX
PD 03-JUN-1999.
XX
PF 20-NOV-1998; 98WO-US024950.
XX
PR 20-NOV-1997; 97US-00975424.
XX
PA (GENE-) GENETIX PHARM INC.
PA (MASI) MASSACHUSETTS INST TECHNOLOGY.
XX
PI Leboulch P, Pawliuk RJ, Bachelot T;
XX
DR WPI; 1999-357696/30.
DR N-PSDB; AAX77715.
XX
PT Anti-angiogenic gene therapy vectors.
XX
PS Disclosure; Fig 6; 83pp; English.
XX
CC This invention describes a novel viral gene therapy vector comprising a
CC nucleic acid molecule encoding an anti-angiogenic polypeptide chosen from
CC human or murine angiostatin, human or murine endostatin and angiogenesis-
CC inhibiting fusions and fragments, where the viral vector is sufficiently
CC attenuated for use in human gene therapy. The products of the invention
CC have anti-angiogenic, cytostatic, anti-diabetic and ophthalmological
CC activity. The vector is used in gene therapy for inhibiting tumour growth
CC in humans harbouring a solid tumour. The vector expresses an anti-
CC angiogenic polypeptide. An additional use comprises treatment of diabetic
CC retinopathy, where the anti-angiogenic polypeptide inhibits angiogenesis
CC in the vicinity of the retina. The vector is administered to cells ex
CC vivo and then administered to the patient
XX
SQ Sequence 184 AA;

Query Match 99.7%; Score 965; DB 2; Length 184;
Best Local Similarity 99.5%; Pred. No. 3e-107;
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184
```

RESULT 6
AAY70258
ID AAY70258 standard; protein; 184 AA.
XX
AC AAY70258;
XX
DT 06-JUN-2000 (first entry)
XX
DE Murine angiogenesis inhibitor, endostatin.
XX
KW Murine; immunoglobulin Fc fragment; endostatin; immunofusin;
KW angiogenesis; inhibitor; cytostatic; antirheumatoid; antiarthritic;
KW antipsoriatic; antidiabetic; ophthalmological; immunosuppressant;
KW vasotropic; vulnerary; treatment; antiarteriosclerosis; tumour;
KW metastasis; atherosclerosis; psoriasis; rheumatoid arthritis;
KW ocular angiogenic disease; diabetic retinopathy; macular degeneration;
KW myocardial angiogenesis; plaque neovascularisation; telangiectasia;
KW wound granulation; keloid scar; gene therapy.
XX
OS Mus musculus.
XX
PN WO200011033-A2.
XX
PD 02-MAR-2000.
XX
PF 25-AUG-1999; 99WO-US019329.
XX
PR 25-AUG-1998; 98US-0097883P.
XX
PA (LEXI-) LEXINGEN PHARM CORP.
XX
PI Lo K, Li Y, Gillies SD;
XX
DR WPI; 2000-237616/20.
DR N-PSDB; AAZ51299.
XX
PT Novel fusion protein of angiostatin or endostatin and an immunoglobulin
PT FC region, useful for treating conditions mediated by angiogenesis, such
PT as rheumatoid arthritis, tumors and macular degeneration.
XX
PS Example 5; Page 48-49; 68pp; English.
XX
CC The patent discloses a DNA molecule encoding a fusion protein comprising
CC a signal sequence, an immunoglobulin Fc region, and an angiogenesis
CC inhibitor selected from angiostatin, endostatin, a plasminogen fragment
CC having angiostatin activity, a collagen XVIII fragment having endostatin
CC activity, or combinations of them. The fusion protein (immunofusin) is
CC used to inhibit angiogenesis and to treat diseases or conditions mediated
CC by angiogenesis. Conditions that may be treated include solid tumours,
CC blood born tumours, tumour metastasis, benign tumours including
CC haemangiomas, acoustic neuromas, neurofibromas, trachomas and pyrogenic
CC granulomas, rheumatoid arthritis, psoriasis, ocular angiogenic diseases
CC e.g. diabetic retinopathy, retinopathy of prematurity, macular
CC degeneration, corneal graft rejection, neovascular glaucoma, retrolental
CC fibroplasia, rubeosis and Osler-Webber syndrome; myocardial angiogenesis,
CC plaque neovascularisation, telangiectasia, haemophiliac joints'
CC angiofibroma, wound granulation, and excessive or abnormal stimulation of
CC endothelial cells, intestinal cells, atherosclerosis, sclerodermal and
CC hypertrophic scars, i.e. keloid scars. The DNA constructs may be used in
CC gene therapy. The present sequence is a murine endostatin used in the
CC construction of immunofusin containing murine immunoglobulin Fc fragment
XX
SQ Sequence 184 AA;

Query Match 99.7%; Score 965; DB 3; Length 184;
Best Local Similarity 99.5%; Pred. No. 3e-107;
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184
```

RESULT 7

ABG31793
ID ABG31793 standard; protein; 184 AA.
XX
AC ABG31793;
XX
DT 05-DEC-2002 (first entry)
XX
DE Human endostatin polypeptide.
XX
KW Human; endostatin; tumour; cancer; metastasis; cytostatic;
KW antiangiogenic.
XX
OS Homo sapiens.
XX
PN WO200268457-A2.
XX
PD 06-SEP-2002.
XX
PF 27-FEB-2002; 2002WO-IT000119.
XX
PR 27-FEB-2001; 2001IT-MI000394.
XX
PA (UYMI-) UNIV MILANO.
XX
PI Chillemi F, Vicentinie LMT, Francescato P;
XX
DR WPI; 2002-698655/75.
XX
PT New peptide useful for the preparation of medicaments with antiangiogenic
PT activity that may be used in treating tumors or metastases, comprises a
PT sequence corresponding to fragments of human endostatin.
XX
PS Disclosure; Fig 1; 24pp; English.
XX
CC The invention relates to peptide comprising 20-50 amino acids with
CC sequences corresponding to the human endostatin polypeptide sequence, its
CC salt or non-toxic derivative. The peptides are useful in the preparation
CC of medicaments with antiangiogenic activity which may be useful in
CC treating tumours or metastases. This sequence represents a human
CC endostatin polypeptide
XX
SQ Sequence 184 AA;

Query Match 99.7%; Score 965; DB 5; Length 184;
Best Local Similarity 99.5%; Pred. No. 3e-107;
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184
```

RESULT 8
AAE02031
ID AAE02031 standard; protein; 207 AA.
XX
AC AAE02031;
XX
DT 31-JUL-2001 (first entry)
XX
DE Murine endostatin fused to N-terminal secretion signal.
XX
KW Murine; endostatin; fusion protein; nucleotide-binding domain; NBD;
KW ligand-binding domain; LBD; transcription regulating domain; TRD; cancer;
KW zinc finger protein; ZFP; ligand-activated transcriptional regulator;
KW gene regulation; gene therapy; cell proliferative disorder; psoriasis;
KW pemphigus vulgaris; Behcet's syndrome; lipid histiocytosis.
XX
OS Mus sp.
XX
PN WO200130843-A1.
XX
PD 03-MAY-2001.
XX
PF 23-OCT-2000; 2000WO-EP010430.
XX
PR 25-OCT-1999; 99US-00433042.
PR 02-JUN-2000; 2000US-00586625.
XX
PA (NOVS) NOVARTIS AG.
PA (SCRI) SCRIPPS RES INST.
XX
PI Barbas CF, Kadan M, Beerli R;
XX
DR WPI; 2001-308618/32.
DR N-PSDB; AAD06108.
XX
PT New fusion protein containing nucleotide-binding and ligand-binding
PT domains, useful e.g. in gene therapy of cancer, provides ligand-activated
PT control of gene expression.
XX
PS Example 19; Page 209; 218pp; English.
XX
CC The invention relates to fusion protein comprising a nucleotide-binding
CC domain (NBD), a ligand-binding domain (LBD) of an intracellular receptor
CC (ICR) and a transcription regulating domain (TRD). NBD is a polydactyl
CC zinc finger protein (ZFP), or a modular part of it, that interacts
CC specifically with a contiguous sequence of at least 3 nucleotides. The
CC fusion protein functions as a ligand-activated transcriptional regulator.
CC The fusion protein and the nucleic acid encoding it, are used to regulate
CC gene expression, particularly in gene therapy for treating malignant cell
CC proliferative diseases (e.g. colon cancer, prostate cancer, renal-cell
CC carcinoma) and non-malignant cell proliferative diseases (e.g. psoriasis,
CC pemphigus vulgaris, Behcet's syndrome and lipid histiocytosis). The
CC fusion protein and its DNA are also useful for treating diseases caused
CC by viruses in humans/plants, genetic and/or acquired diseases. The fusion
CC protein can be designed to target any selected gene (endogenous or
CC exogenous), and can be made to have different selectivity or specificity
CC for endogenous or exogenous ligands. The present sequence is murine
CC endostatin fused to an N-terminal secretion signal. The corresponding
CC cDNA sequence was used in the construction of Left end shuttle plasmids
CC containing regulatable transgene cassettes for evaluation of Cys2-His2
CC Zinc finger DNA binding domain (DBD)-Oestrogen receptor (ER) LBD
CC regulators
XX
SQ Sequence 207 AA;

Query Match 99.7%; Score 965; DB 4; Length 207;
Best Local Similarity 99.5%; Pred. No. 3.6e-107;
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 83

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db         84 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 143

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203

Qy        181 SFSK 184
```

```
                ||||
Db        204 SFSK 207
```

RESULT 9
AAB71930
ID AAB71930 standard; protein; 207 AA.
XX
AC AAB71930;
XX
DT 10-MAY-2001 (first entry)
XX
DE Murine endostatin attached to Ig-kappa leader sequence.
XX
KW Mouse; endostatin; antitumour; cytostatic; antiarthritic; antipsoriatic;
KW antidiabetic; ophthalmological; gene therapy; angiogenic inhibitor;
KW adenoviral vector; diabetic retinopathy; cardiovascular disease;
KW arthritis; psoriasis; cerebral oedema; intravascular coagulopathy;
KW lymphoma; leukaemia; immunoglobulin; Ig; Ig-kappa.
XX
OS Mus sp.
XX
PN WO200112830-A1.
XX
PD 22-FEB-2001.
XX
PF 11-AUG-2000; 2000WO-EP007865.
XX
PR 13-AUG-1999; 99US-00373938.
XX
PA (NOVS) NOVARTIS AG.
PA (NOVS) NOVARTIS-ERFINDUNGEN VERW GES MBH.
XX
PI Hallenbeck PL, Chen CT;
XX
DR WPI; 2001-202871/20.
DR N-PSDB; AAF60336.
XX
PT Adenoviral vector for treating tumors and disorders associated with
PT angiogenesis, such as cancer, arthritis, and psoriasis, comprises a DNA
PT sequence encoding an angiogenic inhibitor, particularly endostatin.
XX
PS Example 1; Fig 1B; 59pp; English.
XX
CC The nucleotide sequence encoding this protein was used in the
CC construction of an adenoviral vector which includes a DNA sequence
CC encoding endostatin. The adenoviral vector is useful for expressing
CC endostatin in a mammalian cell such as an A549 or Hep3B cell. It is
CC useful for treating other diseases and disorders associated with
CC angiogenesis, such as neovascular diseases of the eye, including diabetic
CC retinopathy, cardiovascular disease, arthritis, psoriasis, cerebral
CC oedema and intravascular coagulopathy (Kasabach-Merritt syndrome). The
CC vector inhibits, prevents or destroys the growth of tumours by preventing
CC the formation of blood vessels in tumours, such as lymphoma and leukaemia
XX
SQ Sequence 207 AA;

Query Match 99.7%; Score 965; DB 4; Length 207;
Best Local Similarity 99.5%; Pred. No. 3.6e-107;
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 83

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db         84 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 143

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 203
```

```
Qy        181 SFSK 184
                ||||
Db        204 SFSK 207
```

RESULT 10
AAY08691
ID AAY08691 standard; protein; 218 AA.
XX
AC AAY08691;
XX
DT 10-AUG-1999 (first entry)
XX
DE Murine gene therapy peptide construct SP-Flag-Endo.
XX
KW Plasminogen; murine; angiostatin; endostatin; gene therapy; vector;
KW anti-angiogenic; attenuation; cytostatic; anti-diabetic; ophthalmology;
KW tumour growth; solid tumour; diabetic retinopathy; retina; construct.
XX
OS Mus sp.
OS Synthetic.
XX
PN WO9926480-A1.
XX
PD 03-JUN-1999.
XX
PF 20-NOV-1998; 98WO-US024950.
XX
PR 20-NOV-1997; 97US-00975424.
XX
PA (GENE-) GENETIX PHARM INC.
PA (MASI) MASSACHUSETTS INST TECHNOLOGY.
XX
PI Leboulch P, Pawliuk RJ, Bachelot T;
XX
DR WPI; 1999-357696/30.
DR N-PSDB; AAX77717.
XX
PT Anti-angiogenic gene therapy vectors.
XX
PS Example 1; Page 69; 83pp; English.
XX
CC This invention describes a novel viral gene therapy vector comprising a
CC nucleic acid molecule encoding an anti-angiogenic polypeptide chosen from
CC human or murine angiostatin, human or murine endostatin and angiogenesis-
CC inhibiting fusions and fragments, where the viral vector is sufficiently
CC attenuated for use in human gene therapy. The products of the invention
CC have anti-angiogenic, cytostatic, anti-diabetic and ophthalmological
CC activity. The vector is used in gene therapy for inhibiting tumour growth
CC in humans harbouring a solid tumour. The vector expresses an anti-
CC angiogenic polypeptide. An additional use comprises treatment of diabetic
CC retinopathy, where the anti-angiogenic polypeptide inhibits angiogenesis
CC in the vicinity of the retina. The vector is administered to cells ex
CC vivo and then administered to the patient
XX
SQ Sequence 218 AA;

Query Match 99.7%; Score 965; DB 2; Length 218;
Best Local Similarity 99.5%; Pred. No. 3.9e-107;
Matches 183; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         35 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 94

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db         95 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 154

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        155 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 214
```

```
Qy        181 SFSK 184
              ||||
Db        215 SFSK 218
```

```
RESULT 11
AAY08692
ID   AAY08692 standard; protein; 580 AA.
XX
AC   AAY08692;
XX
DT   10-AUG-1999  (first entry)
XX
DE   Murine gene therapy peptide construct SP-K1-K2-K3-K4-Flag-Endo.
XX
KW   Plasminogen; murine; angiostatin; endostatin; gene therapy; vector;
KW   anti-angiogenic; attenuation; cytostatic; anti-diabetic; ophthalmology;
KW   tumour growth; solid tumour; diabetic retinopathy; retina; construct.
XX
OS   Mus sp.
OS   Synthetic.
XX
PN   WO9926480-A1.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-US024950.
XX
PR   20-NOV-1997;   97US-00975424.
XX
PA   (GENE-) GENETIX PHARM INC.
PA   (MASI ) MASSACHUSETTS INST TECHNOLOGY.
XX
PI   Leboulch P,  Pawliuk RJ,  Bachelot T;
XX
DR   WPI; 1999-357696/30.
DR   N-PSDB; AAX77718.
XX
PT   Anti-angiogenic gene therapy vectors.
XX
PS   Example 1; Page 72-74; 83pp; English.
XX
CC   This invention describes a novel viral gene therapy vector comprising a
CC   nucleic acid molecule encoding an anti-angiogenic polypeptide chosen from
CC   human or murine angiostatin, human or murine endostatin and angiogenesis-
CC   inhibiting fusions and fragments, where the viral vector is sufficiently
CC   attenuated for use in human gene therapy. The products of the invention
CC   have anti-angiogenic, cytostatic, anti-diabetic and ophthalmological
CC   activity. The vector is used in gene therapy for inhibiting tumour growth
CC   in humans harbouring a solid tumour. The vector expresses an anti-
CC   angiogenic polypeptide. An additional use comprises treatment of diabetic
CC   retinopathy, where the anti-angiogenic polypeptide inhibits angiogenesis
CC   in the vicinity of the retina. The vector is administered to cells ex
CC   vivo and then administered to the patient
XX
SQ   Sequence 580 AA;

  Query Match             99.7%;  Score 965;  DB 2;  Length 580;
  Best Local Similarity   99.5%;  Pred. No. 1.7e-106;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        397 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 456

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              |||||||||||||||||||||||||||||:||||||||||||||||||||||||||||||
Db        457 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 516

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        517 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 576
```

```
Qy        181 SFSK 184
              ||||
Db        577 SFSK 580
```

```
RESULT 12
AAW26328
ID   AAW26328 standard; protein; 1288 AA.
XX
AC   AAW26328;
XX
DT   19-NOV-1997  (first entry)
XX
DE   Mouse alpha-1 collagen (XVIII).
XX
KW   Alpha-1 collagen; type XVIII collagen; cartilage degeneration.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   Peptide         303. .308
FT                   /label= GXYGX'Y'_motif
FT   Peptide         309. .314
FT                   /label= GXYGX'Y'_motif
FT   Peptide         315. .320
FT                   /label= GXYGX'Y'_motif
FT   Peptide         321. .326
FT                   /label= GXYGX'Y'_motif
FT   Peptide         337. .342
FT                   /label= GXYGX'Y'_motif
FT   Peptide         343. .348
FT                   /label= GXYGX'Y'_motif
FT   Peptide         349. .354
FT                   /label= GXYGX'Y'_motif
FT   Peptide         355. .360
FT                   /label= GXYGX'Y'_motif
FT   Peptide         361. .366
FT                   /label= GXYGX'Y'_motif
FT   Peptide         367. .372
FT                   /label= GXYGX'Y'_motif
FT   Peptide         373. .378
FT                   /label= GXYGX'Y'_motif
FT   Peptide         379. .384
FT                   /label= GXYGX'Y'_motif
FT   Peptide         385. .390
FT                   /label= GXYGX'Y'_motif
FT   Peptide         396. .401
FT                   /label= GXYGX'Y'_motif
FT   Peptide         402. .407
FT                   /label= GXYGX'Y'_motif
FT   Peptide         435. .440
FT                   /label= GXYGX'Y'_motif
FT   Peptide         441. .446
FT                   /label= GXYGX'Y'_motif
FT   Peptide         447. .452
FT                   /label= GXYGX'Y'_motif
FT   Peptide         453. .458
FT                   /label= GXYGX'Y'_motif
FT   Peptide         459. .464
FT                   /label= GXYGX'Y'_motif
FT   Peptide         470. .475
FT                   /label= GXYGX'Y'_motif
FT   Peptide         476. .481
FT                   /label= GXYGX'Y'_motif
FT   Peptide         482. .487
FT                   /label= GXYGX'Y'_motif
FT   Peptide         488. .493
FT                   /label= GXYGX'Y'_motif
FT   Peptide         494. .499
FT                   /label= GXYGX'Y'_motif
FT   Peptide         500. .505
FT                   /label= GXYGX'Y'_motif
FT   Peptide         506. .511
```

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FT                     /label= GXYGX'Y'_motif
FT   Peptide           512. .517
FT                     /label= GXYGX'Y'_motif
FT   Peptide           518. .523
FT                     /label= GXYGX'Y'_motif
FT   Peptide           524. .529
FT                     /label= GXYGX'Y'_motif
FT   Peptide           530. .535
FT                     /label= GXYGX'Y'_motif
FT   Peptide           536. .541
FT                     /label= GXYGX'Y'_motif
FT   Peptide           542. .547
FT                     /label= GXYGX'Y'_motif
FT   Peptide           548. .553
FT                     /label= GXYGX'Y'_motif
FT   Peptide           580. .585
FT                     /label= GXYGX'Y'_motif
FT   Peptide           586. .591
FT                     /label= GXYGX'Y'_motif
FT   Peptide           592. .597
FT                     /label= GXYGX'Y'_motif
FT   Peptide           598. .603
FT                     /label= GXYGX'Y'_motif
FT   Peptide           604. .609
FT                     /label= GXYGX'Y'_motif
FT   Peptide           610. .615
FT                     /label= GXYGX'Y'_motif
FT   Peptide           616. .621
FT                     /label= GXYGX'Y'_motif
FT   Peptide           622. .627
FT                     /label= GXYGX'Y'_motif
FT   Peptide           628. .633
FT                     /label= GXYGX'Y'_motif
FT   Peptide           634. .639
FT                     /label= GXYGX'Y'_motif
FT   Peptide           640. .665
FT                     /label= GXYGX'Y'_motif
FT   Peptide           657. .662
FT                     /label= GXYGX'Y'_motif
FT   Peptide           677. .682
FT                     /label= GXYGX'Y'_motif
FT   Peptide           683. .688
FT                     /label= GXYGX'Y'_motif
FT   Peptide           689. .694
FT                     /label= GXYGX'Y'_motif
FT   Peptide           695. .700
FT                     /label= GXYGX'Y'_motif
FT   Peptide           707. .712
FT                     /label= GXYGX'Y'_motif
FT   Peptide           713. .718
FT                     /label= GXYGX'Y'_motif
FT   Peptide           735. .740
FT                     /label= GXYGX'Y'_motif
FT   Peptide           741. .746
FT                     /label= GXYGX'Y'_motif
FT   Peptide           747. .752
FT                     /label= GXYGX'Y'_motif
FT   Peptide           759. .764
FT                     /label= GXYGX'Y'_motif
FT   Peptide           765. .770
FT                     /label= GXYGX'Y'_motif
FT   Peptide           771. .776
FT                     /label= GXYGX'Y'_motif
FT   Peptide           787. .792
FT                     /label= GXYGX'Y'_motif
FT   Peptide           793. .798
FT                     /label= GXYGX'Y'_motif
FT   Peptide           799. .804
FT                     /label= GXYGX'Y'_motif
FT   Peptide           815. .820
FT                     /label= GXYGX'Y'_motif
FT   Peptide           821. .826
FT                     /label= GXYGX'Y'_motif
FT   Peptide           827. .832
FT                     /label= GXYGX'Y'_motif
FT   Peptide           833. .838
FT                     /label= GXYGX'Y'_motif
FT   Peptide           839. .844
FT                     /label= GXYGX'Y'_motif
FT   Peptide           845. .850
FT                     /label= GXYGX'Y'_motif
FT   Peptide           863. .868
FT                     /label= GXYGX'Y'_motif
FT   Peptide           869. .874
FT                     /label= GXYGX'Y'_motif
FT   Peptide           875. .880
FT                     /label= GXYGX'Y'_motif
FT   Peptide           891. .896
FT                     /label= GXYGX'Y'_motif
FT   Peptide           897. .902
FT                     /label= GXYGX'Y'_motif
FT   Peptide           903. .908
FT                     /label= GXYGX'Y'_motif
FT   Peptide           911. .916
FT                     /label= GXYGX'Y'_motif
FT   Peptide           917. .922
FT                     /label= GXYGX'Y'_motif
FT   Peptide           928. .933
FT                     /label= GXYGX'Y'_motif
FT   Peptide           934. .939
FT                     /label= GXYGX'Y'_motif
FT   Peptide           956. .961
FT                     /label= GXYGX'Y'_motif
FT   Peptide           962. .967
FT                     /label= GXYGX'Y'_motif
FT   Peptide           968. .973
FT                     /label= GXYGX'Y'_motif
FT   Peptide           1126. .1131
FT                     /label= GXYGX'Y'_motif
FT   Peptide           1145. .1150
FT                     /label= GXYGX'Y'_motif
FT   Peptide           1193. .1198
FT                     /label= GXYGX'Y'_motif
XX
PN   US5643783-A.
XX
PD   01-JUL-1997.
XX
PF   01-DEC-1993;   93US-00159784.
XX
PR   01-DEC-1993;   93US-00159784.
XX
PA   (HARD ) HARVARD COLLEGE.
XX
PI   Olsen BR,  Oh SP;
XX
DR   WPI; 1997-350247/32.
DR   N-PSDB; AAT84485.
XX
PT   Nucleic acid encoding human alpha-1 collagen - for production of
PT   recombinant alpha-1 collagen, for use in the treatment of cartilage
PT   degeneration.
XX
PS   Disclosure; Fig 2; 35pp; English.

  Query Match             99.7%;  Score 965;  DB 2;  Length 1288;
  Best Local Similarity   99.5%;  Pred. No. 5.4e-106;
  Matches  183;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1105 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 1164

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||
Db       1165 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 1224
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```
Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1225 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 1284

Qy        181 SFSK 184
              ||||
Db       1285 SFSK 1288
```

RESULT 13
AAY18409
ID AAY18409 standard; protein; 184 AA.
XX
AC AAY18409;
XX
DT 24-AUG-1999 (first entry)
XX
DE Endostatin protein sequence.
XX
KW EM1; anti-angiogenic peptide; endostatin; angiogenesis-dependent cancer;
KW benign tumour; rheumatoid arthritis; psoriasis; ocular angiogenesis;
KW Osler-Webber Syndrome; myocardial angiogenesis; angiofibroma; cancer;
KW plaque neovascularisation; telangiectasia; atherosclerosis; scleroderma;
KW dialysis graft vascular access stenosis; renal cancer; therapy.
XX
OS Mus sp.
XX
PN WO9929855-A1.
XX
PD 17-JUN-1999.
XX
PF 08-DEC-1998; 98WO-US026057.
XX
PR 08-DEC-1997; 97US-0067888P.
PR 22-APR-1998; 98US-0082663P.
PR 16-NOV-1998; 98US-0108536P.
XX
PA (BETH-) BETH ISRAEL DEACONESS MEDICAL CENT.
XX
PI Sukhatme VP;
XX
DR WPI; 1999-385604/32.
DR N-PSDB; AAX79949.
XX
PT Mutant endostatin having anti-angiogenic activity.
XX
PS Claim 31; Fig 2; 105pp; English.
XX
CC This sequence is the mouse endostatin. The invention relates to a the
CC mutant endostatin (EM), which has anti-angiogenic activity, and is
CC designated EM1. Compositions comprising EM1 or fusion proteins comprising
CC EM1, are useful for treating diseases characterised by angiogenic
CC activity, such as angiogenesis-dependent cancers, benign tumours,
CC rheumatoid arthritis, psoriasis, ocular angiogenesis, Osler-Webber
CC Syndrome, myocardial angiogenesis, plaque neovascularisation,
CC telangiectasia, haemophiliac joints, angiofibroma, wound granulation,
CC intestinal adhesions, atherosclerosis, scleroderma, hypertrophic scars,
CC cat scratch disease, Helicobacter pylori ulcers, dialysis graft vascular
CC access stenosis, contraception and obesity. In particular, the diseases
CC treatable by EM1 comprise cancer, especially renal cancer. The methods
CC provide a means for introducing EM1 into mammalian cells via gene
CC therapy, for production of EM1 via recombinant means, as well as
CC recombinant production of the EM1 protein. EM1 performs as well or better
CC than whole endostatin. Use of EM1 is advantageous for treatment of
CC angiogenic diseases in that increasingly smaller peptides are more potent
CC on a weight basis, and may be able to better penetrate tissues
XX
SQ Sequence 184 AA;

Query Match 99.5%; Score 963; DB 2; Length 184;
Best Local Similarity 99.5%; Pred. No. 5.3e-107;
Matches 183; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 HGSDPMGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180

Qy        181 SFSK 184
              ||||
Db        181 SFSK 184
```

RESULT 14
AAW92297
ID AAW92297 standard; peptide; 1288 AA.
XX
AC AAW92297;
XX
DT 28-APR-1999 (first entry)
XX
DE Mouse alpha-1 (XVIII) collagen chain common sequence MO18(common)28.
XX
KW Human; type XVIII collagen; liver disease; cirrhosis; detection;
KW hepatocellular carcinoma; diagnosis.
XX
OS Mus sp.
XX
PN WO9856399-A1.
XX
PD 17-DEC-1998.
XX
PF 12-JUN-1998; 98WO-US012327.
XX
PR 12-JUN-1997; 97US-0049369P.
XX
PA (FIBR-) FIBROGEN INC.
PA (FIFI-) ACAD FINLAND.
PA (INRM) INST NAT SANTE & RECH MEDICALE.
XX
PI Pihlajaniemi T, Rehn M, Clement B;
XX
DR WPI; 1999-070292/06.
XX
PT Diagnosis and monitoring of liver disease by measuring collagen type
PT XVIII levels - with elevated levels indicative of disease, especially
PT cirrhosis or hepatocellular carcinoma.
XX
PS Example 6; Fig 8; 56pp; English.
XX
CC A method has been developed for the detecting liver disease. The method
CC comprises: (a) reacting a patient sample with antibodies (Ab) specific
CC for collagen type XVIII (Col18); (b) measuring the amount of Ab-antigen
CC complex (C) formed as indicator of the amount of Col18 present; (c)
CC similar analysis of a non-diseased control; and (d) comparing the amounts
CC of Col18 in the two samples to detect presence or progression of disease.
CC Elevated levels of Col18 are: (i) indicative of disease, specifically
CC cirrhosis; and (ii) predictive of the prognosis of disease, specifically
CC hepatocellular carcinoma (there is a relationship between Col18 mRNA
CC levels and tumour size and necrosis, and survival times are significantly
CC higher in patients with higher Col18 levels). The method provides non-
CC invasive, early and accurate diagnosis of liver disease. The present
CC sequence represents the sequence common to mouse alpha-1 (XVIII) collagen
CC chain from the present invention
XX
SQ Sequence 1288 AA;

Query Match 99.2%; Score 960; DB 2; Length 1288;

```
  Best Local Similarity   99.5%;  Pred. No. 2.2e-105;
  Matches  182;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1106 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 1165

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||
Db       1166 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 1225

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1226 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 1285

Qy        181 SFS 183
              |||
Db       1286 SFS 1288


RESULT 15
AAY25114
ID   AAY25114 standard; protein; 684 AA.
XX
AC   AAY25114;
XX
DT   25-AUG-1999  (first entry)
XX
DE   Mouse alpha1 (XVIII) collagen protein.
XX
KW   Alpha1(XVIII) collagen; mimetic; endostatin; atomic coordinate; library;
KW   anti-angiogenic; heparin binding domain; receptor binding domain; mimic;
KW   alpha-helix A domain; carbohydrate recognition domain; CRD domain;
KW   treatment; angiogenesis; tumour; murine.
XX
OS   Mus sp.
XX
PN   WO9931616-A1.
XX
PD   24-JUN-1999.
XX
PF   16-DEC-1998;   98WO-US026783.
XX
PR   16-DEC-1997;   97US-0069727P.
XX
PA   (HARD ) HARVARD COLLEGE.
XX
PI   Olsen BR,  Hohenester E,  Timpl R,  Sasaki T;
XX
DR   WPI; 1999-395243/33.
XX
PT   Identifying mimetics of mammalian endostatin.
XX
PS   Disclosure; Fig 5A-C; 75pp; English.
XX
CC   This invention describes a novel method for identifying mimetics of
CC   mammalian endostatin. The method comprises identifying a compound having
CC   atomic coordinates with non-trivial similarity to selected coordinates of
CC   atoms of a mammalian endostatin involves (a) providing a library of
CC   atomic coordinates of compounds in a library of candidate compounds, (b)
CC   comparing the library of atomic coordinates to the selected coordinates
CC   of a mammalian endostatin and (c) selecting from the library at least one
CC   candidate compound on the basis of selection criteria which include
CC   similarities between the atomic coordinates of the selected candidate
CC   compound and the atomic coordinates of the mammalian endostatin. The
CC   invention also describes the use of an anti-angiogenic fragment of
CC   endostatin comprising a domain selected from a heparin binding domain, a
CC   receptor binding domain, and exposed on alpha-helix A domain, and a
CC   carbohydrate recognition domain (CRD) domain. The methods can be used for
CC   designing and selecting endostatin mimics. The compounds identified can
CC   be used for treating undesired angiogenesis, e.g. tumours. This sequence
CC   represents mouse alpha1(XVIII) collagen which is used in the description
CC   of the method
XX
SQ   Sequence 684 AA;

  Query Match             98.1%;  Score 950;  DB 2;  Length 684;
  Best Local Similarity   99.4%;  Pred. No. 1.4e-104;
  Matches  180;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       502 HTHQDFQPVLHLVALNTPLSGGMRGIRGADFQCFQQARAVGLSGTFRAFLSSRLQDLYSI 561

Qy         61 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQLQPGARIFSFDGRDVLRHPAWPQKSVW 120
              ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||
Db       562 VRRADRGSVPIVNLKDEVLSPSWDSLFSGSQGQVQPGARIFSFDGRDVLRHPAWPQKSVW 621

Qy        121 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       622 HGSDPSGRRLMESYCETWRTETTGATGQASSLLSGRLLEQKAASCHNSYIVLCIENSFMT 681

Qy        181 S 181
              |
Db       682 S 682


Search completed: August 31, 2004, 19:55:23
Job time : 124 secs
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